

## REMARKS

Claims 1 to 3 have been amended and claim 4 has been canceled without prejudice. Claims 1 to 3 are now active in this application.

Claim 1 now requires an improved encoder for a CATV upstream data channel transmitter having a BICM encoder for receiving data values, the encoder concatenated with an outer Reed-Solomon encoder. No such structure is taught or suggested by Kaiser et al. either alone or in the combination as claimed.

Claim 1 further requires a bit-interleaver interconnected with the encoder, and a symbol mapper interconnected with the bit-interleaver. No such combination is taught or suggested by Kaiser et al.

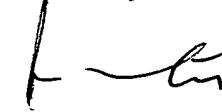
Claim 2 depends from claim 1 and therefore defines patentably over Kaiser et al. for at least the reasons presented above with reference to claim 1.

In addition, claim 2 further limits claim 1 by requiring that the simple mapper be a QAM mapper. No such structure is taught or suggested by Kaiser et al. either alone or in the combination as claimed.

Claim 3 recites the features of claim 1 and further requires a bit interleaved decoder for a CATV upstream channel receiver having a scorer for receiving symbols, a bit de-interleaver interconnected with said scorer, and a convolutional decoder interconnected with said bit de-interleaver. No such combination is taught or suggested by Kaiser et al.

In view of the above remarks, favorable reconsideration and allowance are respectfully requested.

Respectfully submitted,



Jay M. Cantor  
Reg. No. 19906  
(301) 424-0355  
(972) 917-5293

CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8 (a)

I certify that the attached document as listed below is being deposited with the United States Postal Services as First Class Mail in an envelope addressed to the Director of the United States Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450 on the date indicated below.

Amendment 37 C.F.R. 1.111  
Two Month EOT

11-3-03

J-MC

Jay M. Cantor

In re application of

OFIR SHALVI ET AL.

Serial No. 09/493,526 (TI-30149)

Filed January 28, 2000

For: METHOD FOR COMBATING INGRESS AND  
IMPULSE NOISE USING CODED MODULATION